

WHAT WE CLAIM IS:

- 1 1. A tissue adhesive on the basis of human or animal pro-  
2 teins and containing fibrinogen and factor XIII, which  
3 tissue adhesive is characterized in that  
4 a) it contains at least 33 % by weight of fibrino-  
5 gen,  
6 b) the ratio of factor XIII to fibrinogen, ex-  
7 pressed in units of factor XIII per gram of fibrino-  
8 gen, amounts to at least 80,  
9 c) fibrinogen and albumin are contained in the  
10 total protein at a ratio of 33 to 90 : 5 to 40,  
11 d) it contains plasminogen-activator-inhibitor or  
12 plasmin inhibitor in an amount of 250 to 25,000 KIU  
13 per g of fibrinogen, and  
14 e) it is lyophilized.
- 1 2. A tissue adhesive as set forth in claim 1, wherein the  
2 plasminogen-activator-inhibitor or plasmin-inhibitor  
3 is aprotinin.

1 3. A tissue adhesive as set forth in claim 1, further  
2 containing glycine.

1 4. A tissue adhesive as set forth in claim 1, further  
2 containing glucose.

1 5. A tissue adhesive as set forth in claim 1, further  
2 containing sucrose.

1 6. A tissue adhesive as set forth in claim 1, which con-  
2 tains 0.2 to 200 IU of heparin per g of fibrinogen.

1 7. A tissue adhesive as set forth in claim 1 being cap-  
2 able, after dissolution of the lyophilized preparation,  
3 of complete cross-linking of the fibrin- $\alpha$ -chains after

4 3 to 5 minutes of incubation, and of at least 35 %  
5 cross-linking of the fibrin-~~K~~-chains after 2 hours of  
6 incubation, determined according to the SDS-polyacryl-  
7 amide-gel-electrophoresis method.

1 8. A tissue adhesive as set forth in claim 1, wherein the  
2 ratio of fibrinogen to albumin to cold-insoluble glo-  
3 bulin in the total protein is 33 to 90 : 5 to 40 :  
4 : 0.2 to 15.

1 9. A method of producing a tissue adhesive as set forth in  
2 claim 1 from plasma cryoprecipitate, which method com-  
3 prises  
4 removing from the cryoprecipitate plasma-protein  
5 that is soluble in the cold, by treating the cryopre-  
6 cipitate with a buffer solution containing sodium ci-  
7 trate, sodium chloride, glycine, glucose, a plasmino-  
8 gen-activator-inhibitor or plasmin-inhibitor, and  
9 heparin,  
10 dissolving the purified precipitate,  
11 adding human albumin, and

12 lyophilizing the resulting solution.

1 10. A method as set forth in claim 9, wherein the cryo-  
2 precipitate is treated once with said buffer solution.

1 11. A method as set forth in claim 9, wherein the cryo-  
2 precipitate is treated several times with said buffer  
3 solution.

1 12. A method of using the tissue adhesive set forth in  
2 claim 1 for seamlessly connecting human or animal  
3 tissue or organ parts, for sealing wounds, stopping  
4 bleedings and stimulating wound healing.

1 13. A method as set forth in claim 12, wherein the tissue

2 adhesive and a mixture of thrombin and calcium chloride  
3 are applied onto the tissue.

1 14. A method as set forth in claim 12, wherein, prior to  
2 applying the tissue adhesive onto the tissue to be con-  
3 nected, a mixture of thrombin and calcium chloride  
4 is added to the adhesive.

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